CHINESE-PORTUGUESE BILINGUAL'S PHONOLOGICAL AWARENESS: ANNOTATIONS

浅谈中葡双语者的语音意识

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ABSTRACT: Economic and trade cooperation between China and Portuguese-speaking countries have increased, as consequence more universities began offering Portuguese courses and the demand of Portuguese/Chinese bilinguals increased in China. However, the principal focus is mostly on areas such as grammar, translation and literature; also in terms of research, those areas are preferred, leaving for second place important linguistic aspects of Portuguese language. This study aims to identify some of the characteristics of the development of European Portuguese's phonological awareness of Chinese speakers. By conducting different tests, we are able to highlight some of the characteristics and most common difficulties presented by Chinese speakers learning Portuguese. Furthermore, one present some suggestions in order to help both teachers and students overcoming some obstacles. On our study, we gathered data from 40 informants (average age 18-23 years) answers to the surveys and tasks covering the three types of phonological awareness. The more evident characteristics of phonological awareness development by Chinese speakers, include: 1) third-year subjects performance is better than first-year's; 2) Phoneme awareness is slightly inferior to the syllable awareness; 3) Third-year students present better results on syllable awareness performance then in phonemic; 5) the pair [p, b] discrimination is the most difficult. According to the characteristics of phonological awareness development and learning habits of Chinese speakers, it is desirable to explore methodologies that combine games, tests, activities that may dynamically stimulate and mature phonological awareness.

Keywords: Portuguese as a foreign language; phonological awareness; Chinese speakers.

摘要： 语音意识是指个体对口语中的语音结构的认知及听辨能力。根据语音意识层级结构理论，语音意识包含三个层面：单词意识，音节意识和音位意识。大量西方研究表明，语音意识的高低与外语学习中阅读能力强弱关系紧密，因此，语音意识的发展对于外语学习至关重要。近年来，随着中国与葡语国家经贸关系往来日益密切，学习葡语者的数量逐年增多，但针对中国学习者的葡萄牙语语音意识研究尚处空白。本研究尝试以语音意识这个角度作为切入点，初探中国大学生（葡萄牙语专业）的葡语语音意识发展的特点，并从中发现该群体在学习葡语的过程中有哪些较为显著的困难。本研究的末尾，作者还根据研究结果，提出一些课堂活动的优化建议。 此研究分别以大学一年级和大学三年级共40名18-23岁的葡语专业学生作为调查对象，应用现场测试的方式，初探该群体在单词意识，音节意识和音位意识上的发展特点。研究结果表明：1）大学三年级受试者的语音意识表现显著优于大学一年级受试者；2）对所有受试者而言，音节意识表现最优，音位意识表现略低于音节意识；3）对于一年级的受试者而言，单词意识最差，音节意识与音位意识表现无明显差别；4）对于三年级的受试者而言，音节意识最优，音位意识最差；5）在音位意识中，研究者发现中国学生在分辨[p] [b]这两个音时，有显著困难；辨别末尾音位难于首音位。 在日常教学生活中，老师与学生应重视葡语语音意识的训练。针对母语为普通话的中国学习者，在葡语语音意识发展中所呈现的特点以及学习习惯，教师应采用"活化葡语"，逐个击破的教学方式，将葡语学习与课堂游戏结合，带领学生深入地领会葡语语音的魅力，而不仅仅局限在语法知识的传授。

关键词： 中国学生；语音意识；葡萄牙语。

1 Phonological awareness

The word *conscience* derives from the Latin *conscientia*: knowledge of something shared with someone. Consciousness is a quality of mind, including characteristics such as subjectivity, self-awareness, and the ability to understand the relationship between itself and each other. The word *phonological* originates from the Greek *phonos*: voice / sound.

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The study of phonological awareness started in the alphabetical spelling-writing system, so the definition and methods of assessing this ability center on this system. The first study to refer to phonological awareness was elaborated by Bruce, 1964, when he realized that several pre-school children were able to complete tasks that involved segmentation of words into syllables, although they did not know how to manipulate or isolate the phoneme. During the teaching-learning process of a foreign language, phonological awareness should be considered as one of the crucial elements given its close connection with reading and written ability. In order to make teaching and learning a foreign language more efficient, the reflection on the role of phonological awareness is relevant for both learners and teachers. For a more reliable analysis of the similarities and peculiarities of the phonological awareness of Chinese learners of Portuguese, the references are mostly taken from studies that relate to this same subject when learning English, Xu Fen et al. (2005), Hu Min (2013), Pei Zhengwei (2012), Michells et al. (2004), Zhang Jijia e Lin Zhihua (2002), Nunes (2015) and Treiman e Zukowski (1991).

The first objective is to highlight the importance of phonological awareness development on learning a foreign language; second to identify and enumerate, trying to explain the most persistent difficulties. At the end, some ideas that might help to lessen the more recurrent obstacles. This study also aims to question if there are any similarities and particularities in the development of our informants' phonological awareness? -and-Can dialect influence the development of phonological awareness?

In short, phonological awareness is more commonly defined as an explicit knowledge of the phonological structure of a particular language, a capacity that is related to both the acquisition of reading and writing, which is indisputably related to literacy, being a unique skill and worked on during preschool and the initial period of primary school.

According to the perspective of Roazzi & Dowker (1989), implicit consciousness covers spontaneous games with speech sounds and the explicit kind involves conscious analysis of sounds. Specifically, "the implicit phonological awareness corresponds to the ability to recognize similarities between speech sounds, and is really important to awaken the child's attention to the internal structure of words" (Sprenger-Charolles 1996 *apud* Vale & Caria 1997), for instance, activities such as identifying rhymes. On the other hand, explicit phonological awareness is related to the capacity for deliberate manipulation of phonological units (Freitas et al., 2007), the isolation of the phoneme in a word.

2 The importance of phonological awareness on learning foreign languages

Since the 1970s, researchers have been increasingly attentive to studies of phonological awareness. According Treiman and Zukowski (1990), there are similarities between the development of phonological awareness of one's mother language and the acquisition of a foreign language. For example, the development of phonological awareness when learning a foreign language also manifests in a specific sequence. The studies also reveal that individuals display better performance in rhyme consciousness, but are weaker in final phoneme awareness. Yopp's (1988) explains that initial/final phoneme detection requires analytical judgment in which children have to perceive the sound and locate each phoneme. However, the identification of rhyme involves holistic judgment that does not require any knowledge of the individual components of the word, because it is based on the overall perception of the word, since rhyme is the largest and most salient unit of a syllable. Grounded on this principle, firstly, children develop the simpler skills (such as rhyme identification) and then the more complex ones (identification of initial/final phoneme). There is a positive correlation between the time of appearance of phonological awareness in the mother language and the performance of phonological awareness when learning a foreign language.

We noticed that the development of phonological awareness when learning a foreign language is a more complex situation than the acquisition of a mother tongue. In this case, the development of phonological awareness could be influenced by the characteristics of the target language and by the native language experience.

In the area of foreign language learning, there is a Linguistic Interdependence Hypothesis between L1 and L2. Concerning Chinese speakers, Xufen e Dongqi (2005) found that even though the native language and the target language belong to different systems, competence in terms of phonological awareness occurs in correlation, that is, the Chinese language belongs to an ideographic system and English has an alphabetical system, but the *Pinyin* resembles the spelling style of English. Results of this study shown that Chinese speakers' phonological awareness of the English language has a significant correlation with the Chinese language (especially Mandarin) phonological awareness when based on *Pinyin* (Gottardo et al. 2006; Nguyen-hoan & Taft 2010). In a test conducted for Chinese university students learning English, organized by Hu Min in 2013, the informants displayed better syllable awareness and worse phoneme awareness.

According to Stephen Krashen's (1997) theory, there are four basic communicative skills: listening, speaking, reading and writing. These skills are the cornerstones of development when learning a foreign language. The development of these four competencies does not take place in isolation since they all influence each other.

1) Since phonological awareness is the ability to process speech sounds, so we could conclude that oral comprehension has to do with phonological awareness. For example, in the Portuguese language, as in other alphabetic languages, it is common to find cases of co-articulation. If a student misses the word consciousness (a type of phonological awareness) when learning Portuguese, when he hears the expression «*os amigos*» (i.e., the friends), he may incorrectly identify a single word /uz ɐˈmi.guʃ/ which makes no sense in Portuguese. This will be, certainly, an obstacle to the perception of what was said. The development of phonological awareness promotes the progress of oral perception competence.

2) According to several studies, including the study conducted by Guan Yi-Jie,–Li Yan-fang and Dong Qi in 2006, phonological awareness and oral expression ability appear to have a bidirectional relationship, that is, the development of phonological awareness promotes the increase of the lexicon, oral perception /expression and vice versa.

3) In the last five decades, especially in the area of alphabetic languages, several studies have analyzed the relation between phonological awareness and the ability to read and write. The first researches were carried out by the Russian psychologists: L: YZhurova (1963) and D. Belkonin (1963, 1973). Their investigation revealed that the ability to segment speech sounds and success in reading do have a close connection. Some authors developed comparisons between competent and incompetent readers to highlight how phonological awareness is relevant and indispensable for the success of reading and writing when learning a foreign language (Ribeiro 2005).

Based on Miranda and Veloso (2017:442), the role of phonological awareness in the performance of reading and writing when learning a foreign language, since phonological awareness plays a significant role in the process of word identification. According to sthe above cited authors including Miranda and Veloso (2017) it seems to be consensual that word identification is a "double-access" process in which the decoding of speech sounds and visual images occurs simultaneously. As for the ability to read in alphabetic languages, a certain level of phonological awareness can help students activate the decoding mechanism of sounds by quickly and autonomously translating them into written letters (orthography), thereby increasing reading efficiency. Phonological awareness also plays a key role in the writing process of learning foreign languages. For example, in the case of Chinese speakers learning Portuguese, since Portuguese spelling respects grapheme-phoneme corresponding rules, if the learner has difficulties in phoneme awareness, he won't be able to distinguish the minimum pairs, such as [b] and [p], [d]

and [t], and [k] and [g]. This difficulty, concretely in the European Portuguese language, causes several mistakes and confusion both in writing and speaking, given the difficulty in distinguishing words like /bõ. bɐ/; /põ. bɐ/; /ti.ɐ/; /di.ɐ/, /ko.ɫɐ/ e /go.ɫɐ/, etc., thus preventing a correct understanding and expression of ideas.

Phonological awareness training is important both for teaching and for learning a foreign language. When teachers are familiar with the characteristics of the target language's phonological awareness, they are able to identify the main difficulties and develop some pedagogical strategies in order to help learners overcome the obstacles more effectively.

3   Levels of phonological awareness

According to Freitas (2007), phonological awareness is the ability to identify and manipulate the units of oral language. For the classification of levels of phonological awareness, there are several contributions, namely the ideas presented by Bryant & Bradley (1985), Supple (1986), Treiman (1991), Morais (1995), and Freitas (2007).

According to Bryant & Bradley (1985), phonological awareness can be understood as a set of skills "ranging from simple global perception of words, phonological similarities between words, segmentation and manipulation of syllables and phonemes."

Supple (1986: 209-214) stated that, "Phonological awareness develops gradually as the child becomes aware of words, syllables, and phonemes as identifiable units." Therefore, according to the studies of Bryant, Bradley and Supple, phonological awareness can be divided into three levels: word, syllable, and phoneme. According to Freitas (2007), "The phonological awareness has three dimensions: syllabic awareness (syllable), which all children have when they enter school; intersyllabic consciousness (syllabic constituents: alliteration and rhyme) and phoneme awareness (phonemes, segments, speech sounds)."

Considering the most general feature of the phonological structure of oral language - sentences are made of words; words formed by syllables; the syllable constituted by phonemes. This study will focus on the classification of three levels: word consciousness, syllabic and phoneme awareness.

4   Methodology

The phonological awareness tests were carefully prepared, comprising Word Consciousness Test, Syllable Awareness Test and Phoneme Awareness Test, being composed of 74 questions, including tasks of segmentation, construction, ordering, substitution, elision, addition, and identification of phonological units of the Portuguese language.

The phonological awareness test was applied at the end of the second semester (end of April and beginning of May in 2017), after a full academic year of learning, so respondents had already reached (desirable) A1 (1st year) and B1 (3rd year students). The aim was also to compare the development of phonological awareness according to levels.

The subjects were 40 students (34 females and 6 males) who attended the 2nd semester of 1st and 3rd years of the Portuguese BA course, during the academic year 2016/2017, with Mandarin as native language. With an age range between 18 and 23 years.

Gender	Number of subjects	Percentage
Female	34	85
Male	6	15
Total	40	100%

Table 1 - Distribution of subjects according to gender

According to the data collected, there was a great imbalance in terms of the percentage between the female and male gender with a ratio of 6:1. This is because the Chinese community still preserves the prejudice that professions related to translator (foreign language), teacher, and nurse are more appropriate for women. For them, this type of perspective regarding professional career exerts a great influence on their choice of university areas.

The 20 subjects attending the first year were Fujian Normal University in the southern region of Mainland China students. This group had 2 male informants and 18 female, aged between 18 and 20, from Canton (7), Fujian (7), Henan (5) and Beijing (1).

From the 20 subjects in the third year, 15 were students from the University of Macau and five were from Xi'an International Studies University (XISU). The Portuguese Department of the University of Macau has a long history and a profile of excellence in Portuguese language teaching / learning, while Xi'an International Studies University only began to offer Portuguese language courses in 2006, the sixth university to establish a Portuguese course in Mainland China and also the only one in the western zone of China that provides training of professionals in the Portuguese language. These students were aged between 19 and 23, of which 17 were female and only three were male, coming from 10 provinces: Guangxi (1), Heibei (1), Heilongjiang (1), Guangxi (1), Jiangsu (1), Beijing (2), Shannxi (3), Sichuan (1), Yunnan (2), and Zhejiang (1).

Different tests and studies were carried out in this area by (Yopp, 1988; Brigance, 1991; Robertson and Salter, 1995; Adams et al., 1998), observing that there are six types of tasks in the evaluation of phonological awareness: task of identification suppression, omission, substitution, segmentation, and reconstruction. Phonological awareness manifests itself in three levels of increasing complexity: Word Awareness, Syllable Awareness, and Phoneme Awareness. The planning of the inquiry must respect this sequence, so three distinct tests have been developed: Word Consciousness Test, Syllable Consciousness, and Phoneme Consciousness Test. In addition, taking into consideration the emotion factor that could influence the results, it was attempted to maintain an adequate amount of questions in each test, the objective always being to avoid the subjects becoming impatient so that they could remain focused during the period of the test application. Some of the tasks are in audio format, recorded by a Portuguese native speaker.

In the word awareness test, there are three types of tasks: identification, substitution, and ordering tasks. The sequence is presented from the simplest to the most complex. The first task is merely to count the number of words.

Figure 1

I. Testes de Consciência de Palavra:

1) Conte as palavras:

数单词

Quantas palavras é que você ouve?
请问您听到了几个单词？

(Resposta: *Os olhos, de repente, de molho, os amigos, tenho cinco cadernos.*)

| 1. |
| 2. |
| 3. |
| 4. |
| 5. |

As Maria João Freitas et al. (2007: 10) mentioned, in portuguese there is a phenomenon of co-articulation, which arises only in orality and which can prevent the understanding of words and, therefore, the meaning of phrases. For example, when one says *casas amarelas* (yellow houses), or *sete anões* (seven dwarfs), some students will understand two lexical units as only one word which makes no sense in Portuguese, (/ˈka. zɐz ɐ.mɐ. ˈɾe.łɐʃ/; / ˈse.tɨ ɐ.ˈnõjʃ /). If they cannot distinguish the word boundaries, certainly, they cannot identify the number of words, revealing weakness in the development of this type of competence. In this test, subjects were played an audio clip that included five groups of words: *os olhos* (eyes), *de repente* (suddenly), *de molho* (sauce), *os amigos* (friends), and *tenho cinco cadernos* (I have five notebooks), /uz ˈɔʎuʃ/; /dɨ ʁɨ. ˈpe. tɨ/, /dɨ ˈmo. ʎu/; /uz ɐ.ˈmi. guʃ/; /ˈtɐ.ɲu ˈsĩ.ku kɐ.ˈdeɾ.nuʃ/, respectively.

We also had substitution tasks in the word awareness test:

Figure 2

The test of syllable awareness involved: task of segmentation, sorting, reconstruction, identification, and substitution.

Figure 3

In the example above, subjects need to segment the word and count the number of syllables. As shown in figure 3, they should segment three words: the word *peixe* (fish) with two syllables (pei-xe), /ˈpɐj. ʃɨ/; *idade* (age) with three syllables (i-da-de), /i.ˈda. dɨ/, and *nacionalidade* (nationality) six syllables (na-cio-na-li-da-de), /nɐsiunɐlidˈadɨ/.

The tonic and unstressed syllable consciousness was analyzed.

Figure 4

> 3. Identifique a sílaba tónica da palavra:
> 请填写单词的重读音节
>
> Máquina   (má   )
> Cidade   (   )
> Cirandinha   (   )
> Correr   (   )
> Chapéu   (   )
>
> 4. Faça um círculo ao redor da sílaba átona das palavras:
> 请圈出单词的非重读音节
>
> Lápis   papai   sapato   caju   nariz
>
> Jardim   animal   público   triângulo   funil

We picked 10 words in which the tonic and unstressed syllables are at the beginning, middle, and end of the word. To complete this task successfully the subjects must master all the accentuation rules.

Figure 5

> ### III. Teste de Consciência de Fonema
>
> 1. Conte as letras e os fonemas:
> 数字母个数以及音位数
>
> Ex: neve   (4   )   letras   (4) fonemas
>   1) Hoje (   )   letras (   ) fonemas
>   2) Passo (   )   letras (   ) fonemas
>   3) Tempo (   )   letras (   ) fonemas
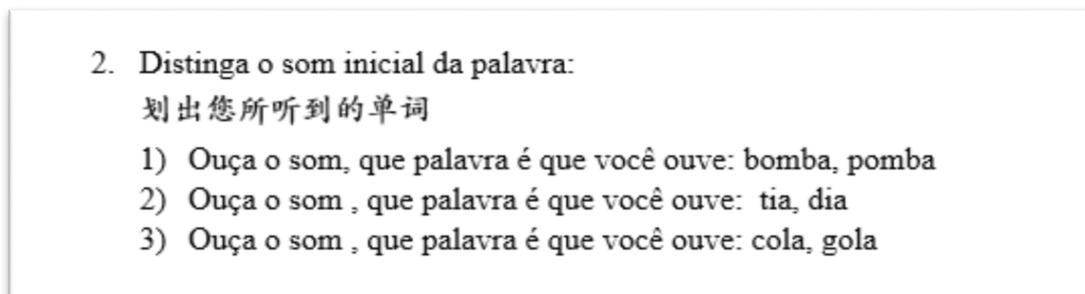>   4) Guitarra (   )   letras (   ) fonemas
>   5) Complexa(   )   letras (   ) fonemas

The above example shows five words with different occurrences. The word *hoje* (today) has four letters and three phonemes, and since the "h" is silent at the beginning of the word, the number of phonemes is smaller than that of letters, /ˈo. ʒɨ/. The words *Guitarra* (*guitar*) and *Complexa* (*complex*) have eight letters but, while the first has seven phonemes, since the double consonant [rr] corresponds only to a phoneme / R /, the second has nine phonemes, since the consonant [x] is phonetically represented by / Ks /. This task implies that subjects are familiar with some of the special cases of letter / phoneme equivalence, /gitˈaʀɐ/, /kõplˈɛʃɐ/; the word *passo* / ˈpa.su/, (*step*).

As known by self-experience, the minimum pairs of this foreign language are one of the great problems for Chinese students. In Mandarin these sounds and type of phonetic distinction do not

exist, and in the pronunciation and perception of *bomba* /bˈõbɐ/ and *pomba*,/ pˈõbɐ/, *tia* /tˈiɐ/ and *dia*, /dˈiɐ/; *cola* /kˈɔlɐ/ and *gola* /ɡˈɔlɐ/ there is no necessary sensitivity to the distinction. (*bomb, pigeon, aunt, day, glue, collar*, accordingly). The phoneme awareness test proved to be the most complex one.

Figure 6

2. Distinga o som inicial da palavra:
   划出您所听到的单词
   1) Ouça o som, que palavra é que você ouve: bomba, pomba
   2) Ouça o som , que palavra é que você ouve: tia, dia
   3) Ouça o som , que palavra é que você ouve: cola, gola

Only the occlusive occurrence at the beginning situation of the word was chosen, the subjects had to mark the words they heard.

All parameters and items were duly discussed and analyzed to ensure the contents correctness, diversity and organization. All of the audios were recorded by a Portuguese native speaker, in a quiet and uninterrupted environment, and converted into MP3 format.

The test was then applied in the classroom, with the presence of the teacher in charge of the class.

1) The objectives of the test were clearly and briefly described; the questions were in Portuguese and Chinese and simple examples of each of the tasks were given;

2) The test is anonymous and the only personal data refer to age, gender, hometown, native language and dialect and, number of years studying Portuguese;

3) After that, subjects began the test. The time to answer was not limited. However, it seems that it may be important to keep track of time in future studies.

4) If they did not understand a certain task, they could go ahead without answering that question.
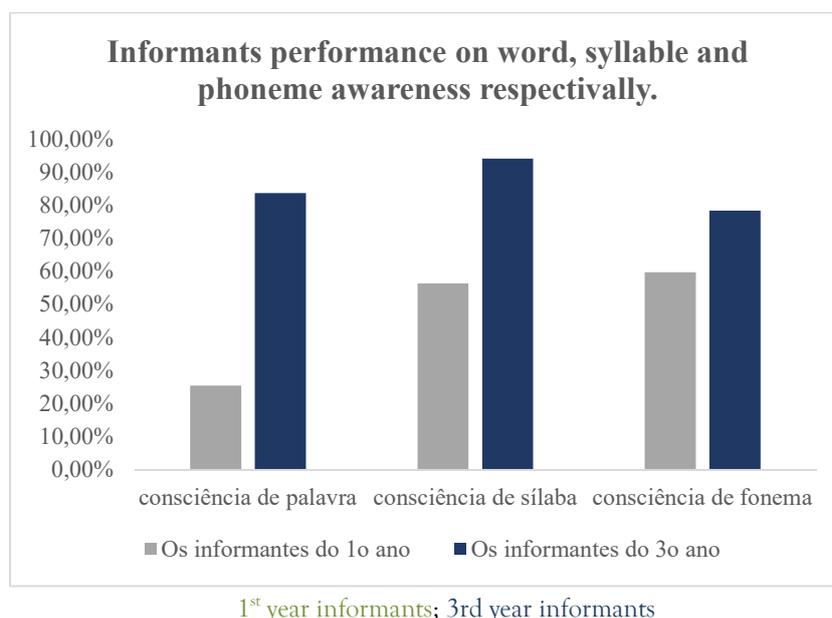
5   Analysis

Our measurement consisted of three tests, namely: Word Awareness Test, Syllable Awareness Test, and Phoneme Awareness Test, with 74 items. The test was applied to 40 subjects, and 2,960 valid data were collected for analysis. Data was treated in Excel 2017, version 15.33.

An overview of the results obtained in the tests is first presented, including three types of comparison: phonological awareness performances between different levels of Portuguese proficiency (A1 and B1); and, between different dialect experiences (the Southern and the Northern dialects).

6 General analysis of the test results

Overall, as far as performance in all three tests was concerned, third-year subjects performed better than first-year students did. The third-year accuracy reached 84.69%, while the first-year stood at 52.66%. Thus, it may be said that phonological awareness is a capacity that can be trained. See the detailed results in Figure 7.

Figure 7

Informants performance on word, syllable and phoneme awareness respectively.
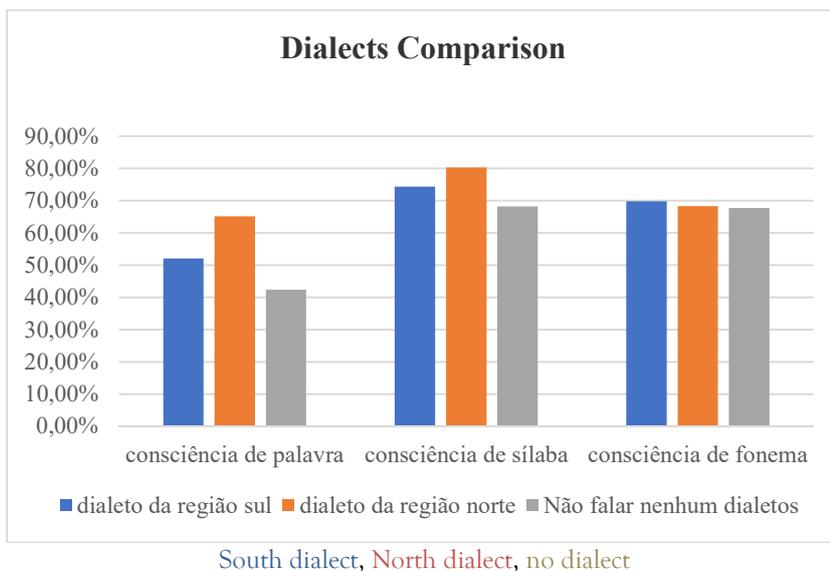
1ˢᵗ year informants; 3rd year informants

As seen from observing Figure 7, regarding the Word Consciousness Test, it is clear a difference between the two groups. First-year subjects had a score of 25.45% and third-year students reached 83.64%.

With regard to the Syllable Consciousness Test, first year students had only 56 percent accuracy and the third year scored about 94 percent.

Regarding the Phoneme Consciousness Test, although there was still better performance by the third-year students, the difference between the groups was not great. The first-year students' accuracy was 59.68%, while the third-year respondents reached 78.39%.

According to the obtained results, the accuracy of the respondents who spoke the southern dialect was 68.32%, that of the northern dialect was 71.88% and that of those who did not speak any dialect was 63.54%. In the Word Consciousness Test, the two groups (southern dialect and northern dialect) results were 52.07% and 65.15%, respectively, while those who did not speak any dialect reached 42.42%. There was a significant difference in the first test, in terms of phonological awareness performance, of the students who used the dialect of the southern region, those from the north, and those who did not speak any dialect. It is worth mentioning that the performance of students who spoke the northern dialect was better. In the following test, the Syllabus Consciousness Test, the accuracy of the three groups (dialect of the southern region, the north region, and no dialect), in this order, was 74.38%, 80.30% and 68.18%. It is also worth noting that the performance of students using a dialect from the northern region were better than the other two groups. In the last test, of Phoneme Consciousness, the accuracy was 69.79% for respondents from the south; 68.28% for respondents from the north and 67.74% for respondents who did not speak any dialect. In the last test, Figure 8, there was no significant difference between the three groups.

Figure 8

South dialect, *North dialect*, *no dialect*

Mandarin is considered standard Chinese, as released by the government to all provinces of mainland China, based on the specific dialect spoken in Beijing, belonging to the Northern dialect group. According to the results, although it is a very limited sample, it suggests that students, who know the north region dialect, have greater facility to learn Portuguese. Somehow, the dialect seems to influence the development of phonological awareness of Chinese learners of Portuguese.

7 Word awareness test results

Three types of tasks were performed: identification task (6 items), substitution (3 items), and sequencing (2 items). In the first, the respondents should identify the words or phrases according to what they perceived/heard; in the substitution task, students would need to identify drawings with corresponding words, there being variation of gender and number. Finally, in the sequencing task, respondents would have to sequence words in order to construct a grammatically correct sentence. As mentioned earlier, the first-year respondents had a low hit rate, only 25.45%. On the contrary, the third-year has demonstrated an accuracy that reached 80%. It is noteworthy that the difference in this test was the most significant among the three that were applied. After verifying these results, a brief interview was conducted with a teacher of the first-year respondents, to know what the possible reasons for this result were for her. According to the teacher, the first-year students still only have eight months of learning Portuguese, with a very limited amount of vocabulary, and these students had little contact with Portuguese native speakers, only once a week. The teacher also considers that the low frequency of dictation training is a factor that influences the results, also emphasizing that the students are not yet familiar with the co-articulation phenomenon of Portuguese. The third year is respondent's lexicon is considerably broader than that of the first year, contributing to the best results obtained.

Table 2:

TASK	ACCURACY (100%)
Identification Task	40.83%
Substitution Task	60%
Sequencing Task	87.50%

The sequence of difficulty levels of tasks, from the easiest to the most difficult, was sequencing task, substitution task, and identification task, which seemed to be the most difficult. These results agree with the consulted literature, since the word identification task is the one that demands greater competence, since learners have to identify word boundaries, and in European Portuguese the co-articulation phenomenon is frequent; therefore, needing a strong oral perception capacity.

As for the syllable awareness test, five types of tasks were elaborated: task of segmentation (3), of construction (3), of identification (14), completing words (8), and replacement task (4).

In the first task, the respondents had to segment the syllables and identify their number per word; in the second, needed to join disordered syllables to form a correct word; in the third, they should identify the stressed and unstressed syllables. In the fourth task, respondents, according to drawings and a syllable provided, had to form correct words.

As for the last task, informants needed to replace one syllable of each word to form a new word.

In the syllable awareness test, the accuracy of first- and third-year students was 56.36% and 94.09%, respectively. It should be noted that the performances of the different levels of Portuguese proficiency indicates a considerable difference, revealing that training and contact with the language play a fundamental role in phonological awareness.

Table 3: Syllable awareness test.

TASK	ACCURACY(100%)
Segmentation Task	91.67%
Construction Task	96.67%
Identification Task	80%
Task of Completing Words	61.88%
Replacement Task	68.75%

For the informants, completing words was obviously the most difficult. We emphasize that among the 33 items of syllable awareness test, the 3 with highest error rate were: the fourth task, completing the word according to the picture of a *boneca* /bunˈɛkɐ/ (*doll*), with only 25% of correct answers; identification task, to identify the tonic syllable of the word *Correr*, and there were only 45% correct answers. It is worth noting that most third-year respondents made the same mistakes, identifying –*rrer* as the stress syllable of the word *Correr*, /ku. ˈʁeɾ/. This mistake may refer to the unfamiliarity with the rules of syllabic division in Portuguese. According to personal experience both as student and as Professor, this phenomenon is similar to what happens when learning Portuguese verbs conjugations. During the learning initial phase, first-year students handle the conjugations well, since they are learning and paying particular attention to related exercises. In contrast, third-year students, with increasing learning content, it is easy to ignore or forget the rules of conjugation of verbs. The third item that proved to be the most difficult was the fourth task, in which they had to form a correct word according to the picture of a strawberry and a syllable, only 22 (55%) answered correctly.

8 Phonemic awareness test results

Regarding the phoneme awareness test, six types of tasks were prepared: task of counting letters and phonemes (10 items), task of distinguishing sounds (phonemes) from words (3 items), task of identifying sounds of the word (8 items), task of combination of phonemes (4 items), task of elision of sounds (2 items), and task of addition (4 items).

First-year respondents had a hit rate of 59.68% and that of the third-year students was 78.39%. Once again, there was a considerable difference between the groups. For the third-year

respondents, the performance in this test was the weakest of the three in the entire study. Consciousness of phoneme seemed to be, in fact, the one that caused most difficulties to all the respondents.

Table 4:

TASK	ACCURACY(100%)
Task of Counting	69.5%
Task of Distinguishing	76.67%
Task of Identifying	75%
Task of Combination	70%
Task of Elision	65%
Task of Addition	51.25%

For the respondents, the sequence from the most difficult task to the easiest is has follows: task of addition; elision; counting; combination; identification, and, lastly distinction.

In Portuguese, the number of letters and phonemes is not always equivalent. The test consisted of five words (*hoje, passo, tempo, guitarra, complexa*) and the respondents had to identify how many phonemes each had. Only 10% correctly answered the number of complex word phonemes. Most respondents thought that the word had eight phonemes, not the nine that actually constituted it, (/ˈo.ʒɨ, ˈpa.su, ˈtẽ.pu, gi.ˈta.ʁɐ, kõ.ˈpłe.ʃɐ/).

In the second task, the respondents were asked to distinguish the three groups of minimum pairs (/ b / and / p /; / t / and / d /; / k / and / g /) in the initial word position. The greatest number of mistakes was for the pair / b / e / p /.

In the third task, the respondents had to identify the initial and final sounds of words. The identification of the initial sounds proved to be easier than the final sounds, with 83.75% and 66.25% accuracy, respectively.

In the fourth task, the respondents had to join isolated phonemes to form a correct word. In this task, in two cases, the students made the same mistakes: 55% of the students could not combine the phonemes /o/, /r/, /a/ to form the word *hora* (/o.ɾɐ/); in relation to the phonemes, 25% of the respondents answered the word *taxi*, completely ignoring the acute accent of the word, the correct one being *táxi*, (/ˈta.ʃi/). This error may well come from a strong English influence. The English word *taxi* appears quite frequently in everyday life.

In the fifth task, the respondents had to exclude the initial sound to form a new word. According to the acquired results, we observed that the accuracy of this task was 65%.

In the last task, they had to add an initial or final sound to form a word, and this task was the most difficult for the respondents, with the lowest accuracy of only 51.25%.

9   Discussion

Our work results are, in general, consistent with studies already carried out in the field of phonological awareness for other languages.

The performance of the third-year respondents was better the first-year respondents; Xu Fen et al. (2005) observed the development of English-language phonological awareness of schoolchildren. Their study comprised four tasks to test the phonological awareness (58 items) choosing, as respondents 88 students from the 1st year, 110 from the 3rd year and 114 from the 5th year. The study revealed that the longer the English language learning time, the better the respondents' performance, with considerable differences. Thus, in the area of LE learning, phonological awareness can be trained and increased as there is more contact with the language.

Concerning the influence of the dialect on the development of phonological awareness, the result of our study shows that it does not play a relevant role in the development of phonemic awareness, but there is a possibility of influencing the development of word consciousness and syllable awareness. This result does not contradict what was reported by Hu Min (2013). The author has studied the possible existence of a relationship between dialect and the development of phonological awareness of the English language in Chinese students. He divided 109 respondents into two groups: speakers of the northern dialect (35) and, in the other group, 74 respondents who spoke other dialects but not the northern one. Through a series of tasks, the results showed that the performance of the two groups did not have a significant difference in the three types of phonological awareness.

About the relation between phonological awareness performance and the gender variable, there is no significant relation. Results in accordance with Pei Zhengwei's (2012) study, who performed a series of English language phonological awareness tests on Chinese respondents. Results have shown that the performance of phonological awareness between genders did not indicate significant differences. Also, Michells et al (2004: 242-246), found that in the Portuguese language, there is no evident difference in phonological awareness among genders.

Regarding the performance of our informants' results show better results on syllable consciousness. Our results are in accordance with the work presented by Hu Min, 2013. His work has become a reference for the study of English phonological awareness by Chinese learners. Hu Min applied a series of tests, including word identification task, phoneme counting and distinction of words initial sound, to Chinese university students, observing that they reach better results in syllable awareness.

According to the results obtained in our study, the phoneme consciousness is slightly lower than syllable consciousness. Our observations seem to prove the Zhang Jijia and Lin Zhihua (2002) results. In the development of phonological awareness of the English language by Chinese children, the performance of syllable consciousness is extremely better than that of phoneme awareness. For children, the task of phoneme manipulation is obviously difficult, since phonemic awareness needs a higher level of maturity and intelligence. The respondents of our study were young adults, thus having more developed cognitive abilities. The result of our study demonstrates this development of phonological awareness in adults.

Giving the performance of the third-year respondents it is evident that phoneme awareness is the most difficult and syllable awareness is the easiest. This result is inconsistent with the natural developmental sequence of the phonological awareness of the native language. Among the three types of phonological awareness, the most complex is the consciousness of phoneme, which requires a greater capacity to manipulate the smallest units of a language. It is noteworthy that the performance of word consciousness for the first-year respondents was the worst among the three types, probably due to the lack of lexicon they may experience so far.

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